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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,980	03/27/2001	Herbert Lifka	NL 000157	9870

7590

02/26/2003

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EXAMINER

PERRY, ANTHONY T

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/817,980

Applicant(s)

LIFKA ET AL.

Examiner

Anthony T Perry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: |

SUPPLEMENTAL DETAILED ACTION

Response to Amendment

The amendment filed on 10/02/02, has been entered and acknowledged by the Examiner.

Cancellation of claim 2 has been entered.

Claims 8-19 have been added.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 recites the limitation "the insulating material" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3-5 GW 2/24/03

Claims 1, ~~4~~ rejected under 35 U.S.C. 102(b) as being anticipated by Morimoto et al. (4,542,317).

Regarding claim 1, Morimoto et al. discloses a display device in Fig. 6, comprising of a first substrate 11 provided with a conductor pattern 12 and 13, parts of which form pixels (P of

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Fig. 7), characterized in that, at least in the viewing area of the display device, the conductor pattern 12 and 13, viewed in the direction from the conductor pattern 12 and 13 towards the substrate 11, substantially completely covers the corresponding part of the first substrate 11 (see 12 and P of Fig. 7). Part of the conductor pattern formed on the substrate is a metal film 12 (see col. 4, lines 11-12) represented by the slanted hash marks in Fig. 7. The part of the conductor pattern 13 that defines pixels is of transparent conductive material deposited in the openings P of Fig. 7 (see col. 4, lines 28-30). The paths S represent slits where the conductor pattern is not covering the substrate. Morimoto discloses a display device in Fig. 7 in which the parts of the conductor pattern, represented by the slanted hash marks are substantially mutually separated by partitioning paths S having a minimal path width.

Regarding claim 3, Morimoto discloses a display device in which the partitioning paths S have a substantially constant width (see Fig. 7).

Regarding claim 4, Morimoto discloses a display device in Fig. 7 in which the partitioning paths S have a curved course. Fig. 7 shows the partitioning paths S having a curved course where they surround the part of the metal film E, which surrounds the openings P.

Regarding claim 5, Morimoto teaches a display device in Fig. 7 in which 80% of the partitioning paths S have a minimal path width. As taught in the applicant's disclosure, minimal path widths are not achieved in places where the partition paths form a corner. More than 80% of partitioning paths S in Fig. 7 of the Morimoto reference have a straight or curved course (do not form corners in which a minimal path width is not achieved).

Claims 6-11 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Khan et al. (US 6,034,752).

Regarding claims 1 and 6-9, the Khan reference teaches a display device in Fig. 6 that comprises a layer of electro-optical material 52, chiral nematic liquid crystal, which is also a light emitting material, between two conductor patterns 56 on a first 46 and second 48 substrate (see col. 11, lines 15-17), at least one of which conductor patterns 56, viewed in the direction from the conductor pattern 56 towards the substrate 48, substantially completely covers the corresponding substrate 48. The first substrate 46 has a conductive pattern 56 coated on the side facing the second substrate (see Fig. 6 and col. 11, lines 45-47). The second substrate 48 is provided a conductive layer 56 (see col. 11, lines 41-43) preferably comprised of transparent Indium Tin Oxide (ITO) (col. 11, lines 61-62). A photoresist pattern is developed, baked and then placed in an acid bath to etch away unwanted regions of the ITO and create an electrode pattern (conductive pattern) 56 which defines pixels (see col. 15, lines 45-46). The conductor pattern is made up of elongated electrode strips each having a width of about 244 microns and a space between them of about 15 microns. Therefore it is clear that the formed conductor pattern 56 substantially completely covers the corresponding substrate 48 and that the partitioning paths have a minimal width and are substantially constant.

Regarding claim 10-11 and 13, Fig. 6 of Khan et al. discloses a display device comprising a first substrate 46 confronting a second substrate 48. The first substrate 46 has a conductive pattern 56 coated on the side facing the second substrate (see Fig. 6 and col. 11, lines 45-47). The second substrate 48 is provided a conductive layer 56 (see col. 11, lines 41-43) preferably

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comprised of transparent Indium Tin Oxide (ITO) (col. 11, lines 61-62) facing the first substrate 46. A photoresist pattern is developed, baked and then placed in an acid bath to etch away unwanted regions of the ITO and create an electrode pattern (conductive pattern) 56 which defines pixels (see col. 15, lines 45-46). Khan teaches that the conductive patterns are made up of a plurality of elongated electrode strips each having a width of about 244 microns and a space between them of 15-20 microns (col. 13, lines 46-50). Therefore, it is clear that the formed conductor patterns 56 substantially completely cover their corresponding substrates 46 and 48 and that the partitioning paths (first and second) have a minimal width (15-20 microns) along at least 80% of a length thereof.

Regarding claim 14, the Khan reference teaches a display device in Fig. 6 that comprises a layer of electro-optical material 52, chiral nematic liquid crystal, which is also a light emitting material, between two conductor patterns 56 on a first 46 and second 48 substrate (see col. 11, lines 15-17).

Claims 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Young et al. (US 6,153,254).

Regarding claims 15-19, the Young reference teaches of a display device in Figs. 1, 2a, and 2b that comprises an electro-luminescent material 7 between two conductor patterns 8 and 2, at least one of which, viewed in the direction from the conductor pattern 2 towards the substrate 1, substantially completely covers the corresponding part of the first substrate 1. Fig. 1 shows the plan view of the display device where electrode strips 2 and 8 make up the two conductor patterns. Fig 2a and 2b show cross section views taken on the lines A-A and B-B

respectively. Young discloses an electro-luminescent display screen in which a flat substrate 1 is provided with a first pattern of conductors 2, then the first conductor pattern 2 is provided with an organic electro-luminescent material 7 and then a second conductor pattern 8 (col. 1, lines 1-6). At the location where the electrode patterns 2 and 8 cross each other, pixels are formed which emit light (col. 1, lines 18-19). FIG. 1 shows the substrate 1 on which the first pattern of electrodes 2 provided with the contacts 3 as well as the conductors 4 provided with the contacts 5 are formed. The contacts 3 and 5 are insulated from each other by the insulating layer 6 shown in FIG. 1 (col. 4, lines 33-38).

Regarding claims 16-17, Fig. 1 shows the first conductor pattern 2 comprising a plurality of first electrodes separated from each other by a first partitioning path 6, which is straight and therefore has a minimal path width at least 80% of a length thereof. The paths 6 shown in Fig. 1 are at least partially filled with an insulating material 6 (col. 4, lines 33-38).

Regarding claims 18-19, Fig. 1 shows the second conductor pattern 8 comprising a plurality of sub-electrodes 8 separated from each other by a first partitioning path 6, which is straight and therefore has a minimal path width at least 80% of a length thereof.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Khan et al. (US 6,034,752) in view of Young et al. (US 6,153,254).

The Khan reference does not show the plan view of the display device and remains silent about the portioning paths being aligned within the viewing area of the display device. However, it is well known in the art to have the electrode strips aligned with the viewing area of the display device when using a matrix-type screen using a large number of rows and columns of sub-electrodes as evidenced by Young. Therefore, the partitioning paths separating the rows and columns will also be aligned with viewing area.

Response to Arguments

In response to the Applicant's arguments that the Prior Art references do not disclose a minimum path width between parts of the conductive pattern the examiner respectfully disagrees. The definition of minimal given in Meriam-Webster's Collegiate Dictionary Tenth Edition is very small or slight. As seen in Fig. 7 of Morimoto the portioning path S is shown to be very small compared to the overall coating. It is noted that claim 1 is not limited to curved corners in order to have a minimal path width. Therefore, it is the position of the Examiner that the partitioning paths S of Fig. 7, are of a very small width despite its sharp corners and therefore meet the limitation of "a minimal path width."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Anthony Perry* whose telephone number is (703) 305-1799. The examiner can normally be reached between the hours of 9:00AM to 5:30PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (703) 305-4794. The fax phone number for this Group is (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [**Anthony.perry@uspto.gov**].

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All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Anthony Perry
Patent Examiner
Art Unit 2879
February 19, 2003



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